UNITED STATES PATENT AND TRADEMARK OFFICE

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10/541,221	07/01/2005	Akihiro Watabe	071971-0281	4946

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MCDERMOTT WILL & EMERY LLP
600 13TH STREET, N.W.
WASHINGTON, DC 20005-3096

EXAMINER
CLARK, MAXWELL A

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 July 2005*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-13* is/are rejected.

7)☒ Claim(s) *1,3,4 and 6-13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some *   c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *07/01/2005*.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

Specification

1.   The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

2.   Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement.

The sheet or sheets presenting the abstract may not include other parts of the application or other material.

The purpose of the abstract is to enable the United States Patent and Trademark Office and the public generally to determine quickly from a cursory inspection the nature and gist of the technical disclosure. See MPEP 608.01(b).

3.   The disclosure is objected to because of the following informalities:

        a.   The disclosure of the invention section only consists of a reproduction of

        Claim 1 (page 3, lines 2-10).

        b.   Page 14, lines 25-26 through page 15, lines 1-3 requires clarification.

        Appropriate correction is required.

Claim Rejections - 35 USC § 112

4.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5.   Claims 1,3, 4, 6-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6.   The claims are generally narrative and indefinite, failing to conform with current U.S. practice. They appear to be a literal translation into English from a foreign document and are replete with grammatical and idiomatic errors.

7.   Claim 1 recites the limitation "changing a parameter which determines an allowable range of the amount of data in the input code to comply with the format conversion *or* addition of the user data" in the second paragraph of the claim. The following paragraph, paragraph 3, recites the limitation "multiplexing the input code ***and*** the user data." The claim language makes it unclear whether the input code *or* user data itself is being multiplexed with some other entity or the data being multiplexed is the input code ***and*** the user data, therefore making it unclear as to the boundaries of protection being sought.

8.   Claim 3 recites the limitation "bit rate change estimation value". There is insufficient antecedent basis for this limitation in the claim. Nowhere in the disclosure of the application is a description of what is meant by this limitation. It is assumed that the limitation provides the decision of an estimated output bit rate.

9.   Regarding claims 1, 4 and 11, the claims are referring to a "standard", it is indefinite as to which standard may apply, further more it is the responsibility of the applicant to determine a concrete assessment for which protection is sought. Burden should not be place on examiner to search for undefined values in undefined standards.

10.   Claims 6-11 recites the limitation "main data". There is insufficient antecedent basis for this limitation in the claims.

11.   Claims 8 and 9 recite the limitations "changing the data amount" and "achieving the data amount change", respectively. There is insufficient antecedent basis for these limitations in the claims.

12.   Claim 9 recites the limitations "decoding only a specific type of data in the main data and re-encoding a result of the decoding". The claim in indefinite and lacks antecedent basis.

13.   Claims 6 and 11-13 recite the limitation "additional information". There is insufficient antecedent basis for the limitation in the claims. It is unclear and appears to have more than a singular meaning in the claims and specification.

14.   Claim 13 recites the limitation "generating the additional information for each of a plurality of processing units included in the input code". There is insufficient antecedent basis for the limitation in the claims. The claim is indefinite and unclear leading to more than one reasonable interpretation.

Claim Rejections - 35 USC § 102

15.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

16.   Claims 1-3 and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated

by Yoo et al. (US 2002/0110193 A1).

17.   Regarding claim 1, Yoo discloses transcoding for converting the format of user

data placed in a user extension area in a received input code compliant with a certain

standard to generate an output code or adding user data to a received input code

compliant with a certain standard to generate an output code (see in particular the

abstract), changing a parameter [quantization parameter] which determines an

allowable range [QUANT value range] of the amount of data in the input code to comply

with the format conversion, multiplexing the input code obtained after the parameter

change [parsing of the sequence, GOP, Picture, Slice and MB header data and

multiplexing the extracted data to construct MPEG-4 bitstream from the initial MPEG-1

bitstream] to generate the output code according to the changed parameter (see in

particular paragraphs [0047-0049] and figure 4). Also see [syntax elements and DCT

coefficient reconstruction], paragraph [0121].

18.   Regarding claims 2 and 3, when the quantization parameter is changed the bit

rate is effectively being changed, further more the bit rate is changed to a desired, i.e.

estimated, bit rate (see in particular paragraph [0044]).

19.   Regarding claim 11, Yoo discloses transcoding for converting the format of user

data placed in a user extension area in a received input code compliant with a certain

standard to generate an output code or adding user data to a received input code

compliant with a certain standard to generate an output code (see in particular the abstract), changing a parameter [quantization parameter] which determines an allowable range [QUANT value range] of the amount of data in the input code to comply with the format conversion, multiplexing the input code obtained after the parameter change [parsing of the sequence, GOP, Picture, Slice and MB header data and multiplexing the extracted data to construct MPEG-4 bitstream from the initial MPEG-1 bitstream] to generate the output code according to the changed parameter (see in particular paragraphs [0047-0049] and figure 4). Also see [syntax elements and DCT coefficient reconstruction], paragraph [0121].

20.   Regarding claim 12, Yoo discloses the VLD where the parameter changes are made and data is temporarily in the VLD prior to sending forward (see in particular paragraphs [0121, 0122].

21.   Regarding claim 13, Yoo discloses data analyzing section has a function of sequentially generating the additional information (see in particular paragraph [0047]) for each of a plurality of processing units included in the input code and writing the generated additional information in the data buffer and the additional information includes position information for identifying a position of next additional information in the data buffer (see particular paragraph [0048]), and the multiplexing section accesses the data buffer using the position information in the reading of the next additional information (see in particular paragraph [0049]).

Claim Rejections - 35 USC § 103

22.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

23.   The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating
       obviousness or nonobviousness.

24.   Claim 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Yoo et al. (US 2002/0110193 A1) in view of Hurst (US 2002/0067768 A1).

Yoo discloses the elements of claims 1 and 2 but does not specifically disclose

changing the virtual buffering verifier size or VBV delay value.

However, Hurst discloses changing the virtual buffering verifier size for the

purpose of providing a constraint in the variability of the data rate that an encoder or

editing process may produce and chang the VBV delay value for the purpose of

preventing overflow of the VBV model's buffer and also to prevent any picture's bit rate

to exceed the bit rate limit.

It would have been obvious to one of ordinary skill in the art at the time the

application was filed to modify the invention disclosed by Yoo to include changing the

VBV buffer size and the VBV delay, as taught by Hurst, in order to assess whether a video stream complies with the MPEG standard buffering requirements whereby the buffer shall not overflow nor underflow when its input is a compliant stream except the case of low_delay. It is therefore important when encoding such a stream that it comply with the VBV requirements. Note that many popular video encoders support this standard, including Xvid and DivX.

25.   Claims 6-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoo et al. (US 2002/0110193 A1) in view of Tahara et al. (US 6,529,550 B2).

Regarding claims 6-8, Yoo discloses the elements of claim 1 but does not specifically disclose distinguishing the user data included in the input code from the other main data, synchronization or making changes if the synchronization difference is beyond a limit.

However, Tahara discloses distinguishing the user data included in the input code from the other main date for the purpose of determining the presence of extension data and user data (see in particular column 15, lines 11-13), also disclosed is synchronization of the [sequence layer] main data and user data for the purpose of having the data and user data coincide (see in particular column 14, lines 5-10; column 16, lines 6-7 and lines 41-44), also disclosed is a time code information that is described as the user data defined by the extension and user data (see in particular column 15, lines 16-18). The time code indicates the time from the leading end of the sequence of the leading picture of the GOP (see in particular column 17, lines 15-17) giving the picture start code data that expressed a start synchronization code of the picture layer.

For instances when the synchronization lies outside set parameters, the data is reset at the leading edge [changing the data], (see in particular column 17, lines 38-41).

It would have been obvious to one of ordinary skill in the art at the time the application was filed to modify the invention disclosed by Yoo to include distinguishing the user data included in the input code from the other main data, synchronization and making changes if the synchronization difference is beyond a limit, as taught by Tahara, in order to achieve selection and quality synchronization techniques so that the extension data coincides with the picture data, additionally, if the entities become out of sync that data is adjusted to bring the entities back into sync.

26.   Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yoo et al. (US 2002/0110193 A1) in view of Tahara et al. (US 6,529,550 B2).

Yoo discloses the elements of claim 1 but does not specifically disclose deleting redundant data included in the main data.

However, Tahara discloses deleting redundant data included in the main data for the purpose of improving the compression coding efficiency (see in particular column 5, lines 45-55).

It would have been obvious to one of ordinary skill in the art at the time the application was filed to modify the invention disclosed by Yoo to include deleting redundant data included in the main data, as taught by Tahara, in order to achieve a better compression ratios.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to MAXWELL A. CLARK whose telephone number is

(571)270-1956. The examiner can normally be reached on Monday to Thursday

7:30A.M. to 5P.M. EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Len Tran can be reached on (571) 272-1184. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

February 01, 2008

/Maxwell A. Clark/
Examiner, Art Unit 4183

/Len   Tran/
Supervisory Patent Examiner, Art Unit 4183